

**AMENDMENTS TO THE CLAIMS:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1           Claim 1 (original): A continuous vacuum carburizing furnace comprising: a heating chamber  
2           for heating a workpiece under a atmospheric pressure; a first conditioning chamber in which the  
3           pressure is reduced from the atmospheric pressure after the receipt of the workpiece from the heating  
4           chamber; a carburizing/diffusing chamber receiving plural workpieces from the first conditioning  
5           chamber and conducting plural cycles of carburizing and diffusing processes under the reduced  
6           pressure; a second conditioning chamber in which the reduced pressure is returned to the  
7           atmospheric pressure after the receipt of the workpiece treated in the carburizing/diffusing chamber;  
8           and a cooling chamber for cooling the workpiece introduced from the second conditioning chamber  
9           under the atmospheric pressure, the furnace further comprising a door member disposed between a  
10          respective adjoining pair of the above chambers, the door member opened/closed only when the  
11          workpiece is transported from one chamber to another.

1           Claim 2 (currently amended): The continuous vacuum carburizing furnace as claimed in  
2           Claim 1, wherein said door member is disposed between said heating chamber and said first  
3           conditioning chamber, wherein said workpiece is subjected to carburization and diffusion in said first

4 conditioning chamber under the reduced pressure.

1 Claim 3 (currently amended): The continuous vacuum carburizing furnace as claimed in  
2 Claim 1, wherein said door member is disposed between said first conditioning chamber and said  
3 carburizing/diffusing chamber, wherein said workpiece is subjected to carburization and diffusion  
4 in said second conditioning chamber under the reduced pressure.

1 Claim 4 (currently amended): The continuous vacuum carburizing furnace as claimed in  
2 Claim 1, wherein said door member is disposed between said carburizing/diffusing chamber and said  
3 second conditioning chamber, wherein said workpiece is of a steel material.

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